

## Original Paper

# Prevalency of metabolic syndrome among adolescents aged 15 to 17 years in Gorgan, Northern Iran (2009)

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## Abstract

**Background and Objective:** The metabolic syndrome is a cluster of metabolic disorders that are associated with elevated risk of cardiovascular diseases and type-II diabetes. This study investigated the prevalence of metabolic syndrome among adolescents population in Gorgan, Northern Iran - 2009.

**Materials and Methods:** A cross-sectional survey was conducted involving 450 adolescents 15-17 years, selected through 2 stage cluster randomized sampling from high schools. Anthropometric measurements, blood pressure, fasting blood glucose and lipid profile were assessed. Metabolic syndrome was defined according to NHANES III criteria. Data was analyzed by SPSS-16 software, Chi-Square and logistic regression.

**Results:** The overall metabolic syndrome prevalence was 3.3% (CI 95%:1.8–5.4). More than half of cases (54.6%) had at least 1 or 2 components. High triglyceride level was the most common disorder in both genders (boys 27.6%, girls 52.4%) and then low HDL cholesterol level (17.3%) and central obesity (7.6%) were common among boys and girls respectively. Where as abdominal obesity in boys (0.9%) and hypertension in girls (3.1%) were less common.

**Conclusion:** This study showed that the rate of metabolic syndrome is slightly lower but the obesity in adolescents is higher than other parts of country.

**Keywords:** Metabolic Syndrome, Adolescents, Waist Circumference, Triglyceride, HDL

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